Bureau of Indian Affairs

WILDLAND FIRE PREVENTION

Program Guide

September 1999

CONTENTS

Introduction

Human caused fires are the greatest cause of wildland fires in Indian Country. Statistics show that this problem continues to grow. A national level effort is being implemented to provide training and direction to develop a strategy that deals with this problem. Although, statistics show that approximately 97% of all wildland fires are controlled in the first burning period, we continue to lose the war to large suppression costs, extensive damage to natural, cultural and personal resources, and excessive risk to the lives of firefighters and publics. Today's wildland fires burn hotter, many times with erratic fire behavior. These conditions are occurring, to a great extent, because of fuel accumulations as a result of fire exclusion, insects and disease.

To be successful, fire prevention must be a "proactive" program. Recent information can provide the best practices to use in specific situations to more effectively reduce damage and risk from unwanted wildland fires. By focusing prevention strategies, resources and implementing integrated fire prevention programs we can now more effectively reduce wildland fire ignitions, reduce the damage to resources by unwanted fires and reduce the threat to public safety.

Purpose

The Wildland Fire Prevention Program Guide identifies the Bureau of Indian Affairs policy and procedures for implementing a Wildland Fire Prevention Program. Funding for prevention programs is provided based upon the development of a plan. The prevention plan must be an integrated element of the fire management program and directed toward ignitions which pose the greatest potential to cause damage or loss.

Objective

The national level program objectives for the Bureau of Indian Affairs are as follows.

1. Implement a focused fire prevention effort within the BIA wildland fire program that will reduce human caused fires.
2. Provide guidance on a strategy to integrate fire prevention into Fire Management Plans.
3. Provide a consistent approach to developing and implementing a fire prevention program in Indian Country.
4. Develop a national level budget which can be justified through the wildland fire prevention analysis process.

Policy

The fire prevention efforts in the Bureau of Indian Affairs will target human caused fires. It is critical that wildland fire managers develop and use prudent management practices to reduce unwanted human caused fires. <u>The following criteria must be met as part of a fire prevention program and integrated into the Fire Management Plan</u>.

- **Fire Permits**: A fire permitting system must be in place to manage the appropriate time, weather, smoke dispersion and fire behavior characteristics conducive to safe burning operations. The use of fire permits must be mandatary during the established fire season.

- **Program Support**: Support of wildland fire management practices by the tribe and local government must be documented and known to the local populus.

- **Fire Investigation**: A system for investigating and documenting all human caused fires must be in place.

- **Law Enforcement**: An agreement must be in place to ensure the support and involvement of law enforcement to deal with violations and assist with investigations.

- **Prevention Analysis**: The Wildland Fire Prevention Analysis & Planning Software Programs (WPAP & PWA2) must be used to develop the prevention program national funding request.

Analysis Procedure

To properly direct wildland fire prevention efforts, it is important to accurately analyze problems or potential problems. The following components must be defined and addressed to began the development of a prevention program.

- **Risks**: Activities or events with the potential to cause a wildfire ignition.

- **Hazards**: The fuels and topography of an area.

- **Values**: Natural or developed areas where loss or destruction by wildland fire would be unacceptable.

Priorities are developed using risks, hazards and values along with fire occurrence information. An action plan is completed to address these priorities. It defines the actions and documents when and where they will take place, and who is responsible. Wildfire prevention actions generally fall within one of the following categories:

- Education: Education is aimed at changing people's behavior by awareness and knowledge.

- Engineering: Engineering is an activity designed to shield an ignition source or remove the fuel which could ignite from a spark or fire brand.

- Enforcement: Enforcement is used to gain compliance with fire regulations and ordinances.

- Administration: Those agency activities such as planning, budgeting and training.

The Wildland Fire Prevention Plan provides a cost effective mix of activities to mitigate potential fire problems. It identifies implementation levels which can be incorporated into the total Fire Management Planning process.

Several fire prevention publications are available that can provide assistance in developing a fire prevention program. The National Wildfire Coordinating Group (NWCG) has developed publications that are available through the national Publications Management System located at the National Interagency Fire Center (NIFC). A sample of the types of publications available follows.

- Wildfire Prevention Strategies (NFES 1572)
- Wildfire Prevention Patrol Guide (NFES 2570)
- Wildfire Prevention Marketing Guide (NFES 1252)
- Wildfire Prevention Event Management Guide (NFES 1253)
- Wildfire Prevention Conducting School Programs Guide
  (NFES 1254)

Program Funding

<u>The following process must be used when requesting national funds for a Wildland Fire Prevention Program</u>. The initial request should be in the form of a subsidiary that includes an Area approved Wildland Fire Prevention Analysis and Plan.

With the approval of a Wildland Fire Prevention Plan by BIA-NIFC, funding will be provided on a recurring bases as a subsidiary for approximately 2 years, contingent on the availability of funds. An annual accomplishment report must be completed during this period. At the end of 2 years, funding will be re-evaluated to determine the impact and success of the prevention program in meeting agency/tribal objectives and reducing human caused fires. If successful, funding would become part of the agency/tribal preparedness budget on a regular recurring basis. From this point on the prevention program must be re-analyzed at the same interval as the Fire Management Preparedness Analysis (FMPA) and incorporated into the agencies/tribes budget request. If the success of the program is in question, a re-analysis must be completed to evaluate the future program's direction and funding.

Day to day fire prevention tasks are considered to be a collateral duty for regular wildland fire personnel. This is just one of the daily tasks required of all personnel within the fire program. However, one time funding may be requested, as a subsidiary, to hire someone to complete this plan.

There are some agencies/tribes that have a large land base with a very complex fire program. Some of these agencies/tribes may be able to justify a seasonal or furlough position.   In other cases, several

agencies/tribes may be able to collectively develop a prevention program that would justify a part time position to work among those agencies/tribes. A seasonal position, up to 13 pay periods or the season limits, whichever is greater, may be justified to work as a dedicated fire prevention specialist.

Instructions

The following instructions are provided to facilitate the wildland fire prevention program funding request. The majority of the information requested is provided through the Wildland Fire Prevention Analysis & Planning Software Program and must be summarized in the Tables described in this document. The program consists of two applications, a Wildfire Prevention Analysis and Plan (WPAP) and a Prevention Workload Analysis version 2.0 (PWA2). The application software can be downloaded from the BIA Fire Management Home Page (fire.nifc.nps.gov/bia). Instructions for installing the software and completing the program analysis are in the Wildfire Prevention Analysis and Planning Users Guide available from BIA-NIFC.

The Wildfire Prevention Analysis and Plan (WPAP) is used to develop the following information.

- Fire occurrence by compartment (Fire Management Zone and/or Representative Location)
- Narrative of purpose and objectives
- Define/identify risks, hazards, and values
- Prevention tasks to be completed and respective time frames

The Prevention Workload Analysis version 2.0 (PWA2) is then used to develop the following information.

    S Identify tasks associated with "General Actions" (education, law enforcement, engineering, administration)

    S Identify tasks associated with "Specific Actions" (patrol, signs, law enforcement, hazards, public contact, inspections, administration)

    S Identify expenses for prevention in the historical and planned program

The initial program funding request must be centered around the highest human caused fire problem. This problem may be in one or more compartments but does not have to occur in all compartments. The initial prevention program and respective tasks to be completed must be centered around this problem.

The prevention plan must be developed using one of two methods. Agencies/tribes with a low complexity fire program and/or low fire occurrence must complete the Wildfire Prevention Analysis and Plan (WPAP). Agencies with a complex fire program or a high occurrence of human caused fires must complete the Wildfire Prevention Analysis and Plan (WPAP) and the Prevention Workload Analysis version 2.0 (PWA2).

The prevention program request must be summarized using the following tables and submitted through respective Area Office's for review and approval to BIA-NIFC. Upon receipt, NIFC will be responsible for reviewing, approving and determining the appropriate level of funding, and execute funds accordingly.

The following Tables provide the format to summarize the request for agencies/tribes that must complete the WPAP application.

Summary Tables for WPAP:

Table 2: Fire Occurrence Summary - total and average annual numbers of fires by general cause for the historical years of fire occurrence data (minimum 10 yrs) included in the analysis.

Table 3: Compartment Master Index and Prioritization - rating of risk, hazard, and value by compartment and prioritization of compartments based on summary ratings of risk, hazard, and value.

Table 4: Tasks to be Completed by Compartment - planned actions to meet the program objectives.

Table 8: Program Expenses - non-personnel and personnel program expenses

Worksheet A: Program Assessment and Justification - program assessment and justification for additional personnel time and funding as identified in the program analysis.

Worksheet B: Annual Accomplishment Report - Identify tasks accomplished and respective program expenses.

Agencies that are required to complete the WPAP and PWA2 applications must complete the following tables.

Summary Tables for PWA2:

Table 1: Unit Identification and Average Program Cost.

Table 2: Fire Occurrence Summary - total and average annual numbers of fires by general cause for the historical years of fire occurrence data (minimum 10 yrs) included in the analysis.

Table 3: Compartment Master Index and Prioritization - rating of risk, hazard, and value by compartment and prioritization of compartments based on summary ratings of risk, hazard, and value.

Table 4: Tasks to be Completed by Compartment - planned actions to meet the program objectives.

Table 5: Time to Accomplish tasks by Compartment - time (hrs) to accomplish each task.

Table 6: Non-Personnel Expense - non-personnel program expenses (historically in the program and additional requested to meet the plan).

Table 7: Prevention Personnel Expense - personnel time (hrs) and expenses (historically in the program and additional requested to meet the plan).

Table 8: Total Program Expenses Summary - total prevention program expenses (historically in the program, additional request, and total).

Worksheet A: Program Assessment and Justification - program assessment and justification for additional personnel time and funding as identified in the program analysis.

Worksheet B: Annual Accomplishment Report - Identify tasks accomplished and respective program costs.

The format, description and instructions for each table required in the prevention analysis follows.

Table 1

Unit Identification and Average Program Cost

Unit ID:	
Unit Name:	
Agency:	

% of Funded Time Spent on Prevention Work _____

Average Program Cost		
$_____	_____	per Month
	_____	per Year

Instructions: Table 1

Unit ID: Alpha code used to identify the unit
Unit Name: Used to identify the unit
Agency: BIA
% of Funded Time Spent On Prevention Work: This field should always be set to 100.
Average Program Cost: Identify the historical average annual total prevention program cost. This figure represents the cost to do prevention not necessarily what was funded in prevention on an annual basis.

11

Table 2

Fire Occurrence Summary
_____thru _____
Historical Years of Fire Occurrence Data Analyzed

A	B	C	D	E
Code/Cause	Total Number of Fires	Average Annual Number of Fires	Occurrence Frequency Ranking	Prevention Treatment Priority
(1) Lightning				
(2) Camp Fire				
(3) Smoking				
(4) Debris Burning				
(5) Incendiary				
(6) Equipment				
(7) Railroad				
(8) Children				
(9) Misc				

Note: This table represents the total and average annual number of fires for the historical years of data analyzed and a ranking by numbers of fires (highest ranking is the cause with the greatest number of fires, etc.).

Instructions: Table 2

Column A: Shared Applications Computer System (SACS) fire cause and respective codes.
Column B: Total number of fires for the historical period analyzed. Minimum number of years to include is 10 years.
Column C: Total number of fires for the historical period divided by the number of years in the historical period.
Column D: Ranking of fire occurrence from highest to lowest.
Column E: Prioritized treatments that identify the most important to the least important cause based on expected effectiveness or success.

Table 3

Compartment Master Index and Prioritization

A	B	C		D	E	F	G
Priority Ranking	**Compartment**			**Risk (L,M,H)**	**Hazard (L,M,H)**	**Value (L,M,H)**	**Composite Rating (L,M,H)**
	No.	**Name**					
1							
2							
3							
4							
5							
6							
7							
8							
9							

Note: Information for this table is displayed in WPAP under "Reports; compartments, master index."

Justification of priority ranking:

Instructions: Table 3

Column A: Ranking of compartments based on the composite ranking of each compartment from highest to lowest.
Column B: Compartment number.
Column C: Compartment name.
Column D: Rating of risk for each compartment (**L**ow, **M**edium, **H**igh).
Column E: Rating of hazard for each compartment (**L**ow, **M**edium, **H**igh).
Column F: Rating of value for each compartment (**L**ow, **M**edium, **H**igh).
Column G: Summary rating of risk, hazard and value (**L**ow, **M**edium, **H**igh).

Table 4

Prevention Workload
Tasks To Be Completed By Compartment

(Attach Report "Tasks; Workload Summary" from WPAP)

Instructions: **Table 4**

On the attached report, highlight and prioritize the Tasks that are essential to developing a program that will meet the objectives pertinent to the highest priority fire cause identified in Table 2. All tasks must have specific due dates assigned and a person responsible for the action.

Table 5

Prevention Workload
Time To Accomplish Tasks

(Attach Report "Specific Actions" comparing historical to planned actions by compartment from PWA2)

	Unit	Standard (hrs)	Historical (hrs)	Planned (hrs)	Difference (hrs)	Actual Time to Complete
Category:						
Description:						
Work Standards:						
Total Hours for all Categories:						

Instructions: **Table 5**

On the attached report, highlight and prioritize the "Specific Actions" that are essential to develop a program that will meet the objectives pertinent to the highest priority fire cause identified in Table 2. Summarize the attached report in Table 5, use the above format for the highlighted "Specific Actions."

Table 6

Non-Personnel Expenses

(Attach Report "Non-Personnel Expense" from PWA2)

Justification for Expenses:

Instructions: Table 6

Non-Personnel expenses must be identified that are relative to the highest priority fire cause and respective prevention program. The report should compare the historical program with the planned program. Non-Personnel expenses are defined in PWA2 under "Expense Items" and item costs assigned under "Expense Amounts."

Table 7

Prevention Personnel Expenses

A	B	C	D	E	F
Personnel Time (hrs) Used in the Historical Program	Personnel Time (hrs) Funded in the Historical Program	Personnel Time (hrs) Additional Need for the Planned Program	Personnel Time (hrs) Additional Funding Need for the Planned Program	Total Personnel Time (hrs) in the Planned Program	Total Personnel Time(hrs) Funding in the Planned Program

Note: Personnel expenses will have to be developed using local information in concert with the total hours identified in the reported "Specific Actions" in PWA2.

Instructions: Table 7

Personnel expenses must be identified that are relative to the highest priority fire cause and respective prevention program. The report should compare the historical program with the planned program.

Column A: Amount of personnel time in hours used in the historical years of the analysis.
Column B: Cost of personnel time used in the historical years of the analysis.
Column C: Additional personnel time required to meet the planned program.
Column D: Additional costs for personnel time to meet the planned program.
Column E: Total personnel time required to meet the planned program (column C + column E).
Column F: Total personnel time funding required to meet the planned program (column B + column D)

Table 8

Total Program Expenses Summary

A	B	C	D	E
Description	Historical Program Expenses	Additional Requested Program Expenses	Total Planned Program Expenses	Funds Expended
Personnel				
Non-Personnel				
Total				

Instructions: Table 8

Column A: Description of items to fund in the program.
Column B: Costs by item that occurred in the historical years of the analysis.
Column C: Additional costs of items required to meet the planned program.
Column D: Total planned program expenses (column B + column C).
Column E: Funds expended in the fiscal year (to be reported at the end of the year)..

Worksheet A
Program Assessment and Justification

I. **Requested additional prevention program funding (Table 8): $_____**

II. **Assigned PCAS number: _____**
    (By NIFC)

III. **List Program Objectives:**

    (example - reduce incendiary caused fires in Compartment I by 5% over the next 2 years.)

IV. **Program assessment, evaluation and justification of additional personnel time request:**

V. **Program assessment, evaluation and justification of additional funding request:**

Worksheet B
Annual Accomplishment Report
(Due November 15th)

_____
Fiscal Year of Accomplishment
_____
PCAS Number

I.   **Agency/Tribe**:   _____

II.   **Date Prepared**:   _____

III.   **Prepared By**:   _____

IV.   **Objectives:** List the wildland fire prevention program objectives and level (percent) of accomplishment.

V.   **Tasks Completed**: Attach task worksheets from Table 4, "Tasks To Be Completed By Compartment" and identify tasks that were accomplished during the fiscal year.

VI.   **Time Required to Complete Tasks** (PWA2 only): Attach table 5, "Time to Accomplish Tasks" and identify the actual hours to complete the tasks.

VII   **Summary of Expenditures**: Attached Table 8, and identify the fiscal year funds expended.

VIII.   **Accomplishment of Program Criteria**:

	Yes	**No**
• **Fire Permits**:	___	___
• **Program Support**:	___	___
• **Fire Investigation**:	___	___
• **Law Enforcement**:	___	___
• **Prevention Analysis**:	___	___

IX.   **Complete the Fire Occurrence Summary Table**: Summary of historical average annual fire occurrence and respective comparison to the effects of implementing a prevention program.

Fire Occurrence Summary Table

A	B	C	D
Code/Cause (prioritize)	Average Annual Number of Fires for 10 yr period _____to _____	Current Year(s) _____to_____ Average Number of Fires (prevention funding in place)	Percent Change in Numbers of Fires (+ or -)
(1) Lightning			
(2) Camp Fire			
(3) Smoking			
(4) Debris Burning			
(5) Incendiary			
(6) Equipment			
(7) Railroad			
(8) Children			
(9) Misc			

Instructions: Fire Occurrence Summary

Column A: Fire cause as identified in the Shared Application Computer System (SACS).
Column B: Total number of fires for the historical period analyzed. Minimum number of years to include is 10 years. The years included in the historical period are prior to receiving prevention program funds.
Column C: Total number of fires for the period in which prevention funding was available to the agency/tribe.
Column D: Percent change in the number of fires that may be contributed to implementation of a prevention program.

X.   Approval of funding request for out year: **Approved: ☐ Yes   ☐ No**
(NIFC will complete this field)
If "No" a revised fire prevention analysis and plan must be completed.